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BE IT KNOWN that I, *Artur FISCHER*, have invented certain
new and useful improvements in

ADHESIVE BOND OF A TOY BUILDING BLOCK,

AND A METHOD FOR PRODUCING THE SAME

of which the following is a complete specification:

BACKGROUND OF THE INVENTION

The present invention relates to an adhesive bond of a toy building block.

It also relates to a method of producing the adhesive bond of a toy building block.

Toy building blocks made from a solid foam that becomes adhesive by moistening are known, for example, from DE 197 03 038. The known toy building blocks are manufactured from an extruded and foamed (expanded) starch material, that is to say from starch or a starch-containing material. A manufacturing process for such toy building blocks is disclosed in DE 40 16 597 A1. Other manufacturing processes and other starting materials are of course also possible. Whilst the known toy building blocks become adhesive by moistening and as a result can be attached adhesively to one another or to another element, for example to a base of a different material, the strength of the adhesive bond is low, especially in the case of adhesion to another element made from a non-adhesive material.

proposed, in accordance with which starch in liquid form is applied to the toy building block and/or to the other element, and the toy building block and the other element are joined together.

When the adhesive bond is formed and the method is performed in accordance with the present invention, the adhesive bond has a higher strength than in the prior art solutions.

The novel features which are considered as characteristic for the present invention are set forth in particular in the appended claims. The invention itself, however, both as to its construction and its method of operation, together with additional objects and advantages thereof, will be best understood from the following description of specific embodiments.

attached can be especially a base of paper, card or the like, on which, for example, a model is constructed using the known toy building blocks. The other element, which consists, for example, of paper or card, can also constitute a reinforcing element for the toy model.

In a preferred embodiment of the invention, the adhesive bond is used to coat, for example, model landscapes or the like with a pourable material consisting of the solid foam that becomes adhesive by moistening and that is or has been triturated before adhesion to form a pourable material, especially flocks. The starch in liquid form is applied to a base, onto which there is then scattered the solid foam that has been triturated to flocks or pourable material.

The base consists, for example, of paper, card or papier mâché and forms the model landscapes. The solid foam that has been triturated to form flocks or pourable material sticks to the base, resulting in a type commercially available liquid starch in an amount of from 30 to 50% and water in an amount of from 50 to 70%. Starch in liquid also includes viscous or pasty starch.

The base consists, for example, of paper, card or papier mâché and forms the model landscape. The solid foam that has been triturated to form flocks or pourable material sticks to the base, resulting in a type of flocking. In that manner it is possible to produce realistic model grass surfaces or model landscapes surfaces, snow-covered surfaces can be created or it is possible to produce model trees by providing branches frames with flocking. The frames can also be made from the solid foam, for example from toy building blocks stuck together or from parts cut out of the toy building blocks.

The starch in liquid form can be applied, for example, using a paintbrush or a rag. In a preferred embodiment of the invention, the starch in liquid form is applied by spraying.

It will be understood that each of the elements described above, or two or more together, may also find a useful application in other types of methods and constructions differing from the types described above.

While the invention has been illustrated and described as embodied in adhesive bond of a toy building block, and a method of producing the SAME, it is not intended to be limited to the details shown,

since various modifications and structural changes may be made without departing in any way from the spirit of the present invention.

Without further analysis, the foregoing will so fully reveal the gist of the present invention that others can, by applying current knowledge, readily adapt it for various applications without omitting features that, from the standpoint of prior art, fairly constitute essential characteristics of the generic or specific aspects of this invention.

What is claimed as new and desired to be protected by Letters Patent is set forth in the appended claims.

CLAIMS

1. An adhesive bond of a toy building block that consists of a solid foam that becomes adhesive by moistening to another element, the adhesive bond comprising starch applied for adhesion in liquid form to a part selected from the group consisting of the toy building block, the other element, and both.

2. An adhesive bond as defined in claim 1, wherein the starch is dissolved in water.

3. An adhesive bond as defined in claim 1, wherein the other element is composed of material selected from the group consisting of the group selected from paper and card.

4. An adhesive bond as defined in claim 1, wherein the solid foam is triturated before adhesion to form a pourable material.

5. An adhesive bond as defined in claim 4, wherein the solid foam is triturated to form flocks.

6. A method for producing an adhesive bond of a toy building block that consists of a solid foam that becomes adhesive by moistening, to another element, the method comprising the steps of applying starch in liquid form to a part selected from the group consisting of the toy building block, the other element, and both; and thereby joining the toy building block to the other element.

7. A method as defined in claim 6; and further comprising using the starch which is dissolved in water.

8. A method as defined in claim 7; and further comprising using the starch which is dissolved in water.

9. A method as defined in claim 7; and further comprising applying the starch by spraying.

10. A method as defined in claim 7; and further comprising triturating the solid foam to form a pourable material; and scattering onto the other element after the starch in liquid form has been applied to the other element.

11. A method as defined in claim 10; and further comprising triturating the solid foam to form flocks.

12. A toy structure, comprising a toy building block consisting of a solid foam that becomes adhesive by moistening; another element; and an adhesive bond for joining the toy building block to the other element, said adhesive bond including starch in liquid form applied to a part selected from the group consisting of said toy building block, the other element, and both, to provide an adhesion between said toy building block and said other element.



ABSTRACT OF THE DISCLOSURE

An adhesive bond, especially for flocking a model landscape, and a process for the production of the adhesive bond, include triturating toy building blocks that are made of a solid foam that becomes adhesive by moistening, for example of foamed starch material, to form flocks, spraying the model landscape with starch in liquid form and scattering the flocks onto the sprayed model landscape.